

BHARTHANA TOWN



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HAWRAH-DELHI RAILWAY TRUNK PASSING THROUGH BHARTHANA TOWN,
CREATES FREQUENT TRAFFIC JAMS

CREATING URBAN AMENITIES IN RURAL AREAS

OF

BHARTHANA TOWN'S CLUSTER VILLAGES (DISTRICT ETAWAH)

Sponsored by:

D.R.D.A., ETAWAH

Government of Uttar Pradesh

S.S.A. JAFRI



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PREFACE

Industrialisation and urbanisation are complementary to each other and together they are engine of growth of overall development. According to 1991 census, there were 4515 towns and cities where country's 25.7 per cent population lived. There were 23 large cities of above one million inhabitants where population growth rate was exceptionally high due to heavy influx from country side. During 2001 census the number of urban settlements grew to 5161 in which about 27.8 per cent country's population was accommodated, whereas in China about half of the country's population lives in urban areas. In 2001, the million plus cities grew to 35. During the decade the overall growth of towns and cities was 12.9 per cent when the growth of million plus cities was 52.0 per cent. This shows that the pace of growth of large cities is quite fast than the growth of small and medium towns. For example the decadal growth of Delhi is about 46 per cent, Kanpur 36 per cent, Lucknow 35 per cent, which is much higher than the growth in small and medium towns or the country as a whole. In New York the decadal growth rate is only 9 per cent, as in USA the economic condition and urban amenities are everywhere balanced, people need not to migrate for all these, like in India. Due to constant and rapid growth of population, especially in large cities the existing urban facilities are always insufficient and urban machinery is ever exhausted, making the urbanisation into slumization.

Since Independence India faced acute shortage of foodgrain essential for human survival which diverted the government attention towards development of agricultural infrastructure, thus overall urban development was side-tracked. Since agriculture is not so capable to absorb all the working age population, therefore, industrialization is the only alternative to provide the livelihood. In real sense, industries can only survive in towns and cities. Small and medium towns are not much different than rural areas in terms of employment avenues, proper amenities and services and thus they are not capable to attract the rural migrants. The Government of India's policy is to provide

the amenities and services to develop 5000 village clusters around the small and medium towns of the country so that the rural urban gap may be bridged and these towns may expand. The first phase in each district one such cluster of 10-15 villages has to be developed. For district Etawah the clusters of villages are chosen around Bharthana town, which is centrally located. Bharthana is located on Delhi - Kolkata railway trunk and it is about 30 kms. in the east from Etawah city. Bharthana is located in the Central doab of River Ahnaiya in the North and River Sengar in the South. Most of the area around Bharthana is fertile and irrigated by canal. Ground water level is about 30 feet, which is easily available for irrigation. Majority of the inhabitants are Yadavas, which is a fast progressing community in all the fields. If the proposed uninterrupted power supply, potable water, efficient transport and communication, proper educational facilities, health services and proper marketing are provided in rural areas, then definitely the push factor towards metropolitan cities would be weakened.

This study of Providing Urban Amenities in Rural Areas of Bharthana Town's Cluster Villages has been undertaken by the Giri Institute of Development Studies, Lucknow, which is sponsored by DRDA, Etawah. We are extremely grateful to Shri Ram Swaroop, Chief Development Officer, Etawah who was kind to recognize the Giri Institute of Development Studies, Lucknow to take up this delicate research task. Throughout the field survey Shri Jugan Kishore Bharti, B.D.O., Bharthana Block was behind the scene and helped us at every step as a guiding force, we are grateful to him. Shri Rajesh Yadava and Shri Shravan Singh, both, ADOs, Bharthana Block were always available to our survey team and they were quite helpful and they deserve our thanks. Shri Anurag Srivastava of CDO Office, Etawah was quite helpful in smoothing the official procedure for which we are thankful to him.

Our senior colleague and Director of the Giri Institute of Development Studies, Lucknow, Prof. A. K. Singh, who was kind to entrust me this study, was always the

source of inspiration without which it was not possible to bring this report into this shape. Dr. (Ms.) Abhilasha Srivastava (Research Assistant) of our project managed the secondary data and handled the primary field data in preparing the tables on computer, deserve heartful thanks. Our field staff Shri Brijesh Tewari (Research Assistant) and Shri Mohammad Zubair Akhtar (Research Assistant) took the task of collecting the data from the field, we acknowledge and thank for their most tiring efforts. Also, Ms. Shweta Mishra, my Ph.D. student and Ms. S.M.S. Jafri, my daughter who volunteered in preparing the maps, I am thankful to them. Special thanks go to Shri Manoharan K., Office Assistant, who word processed the script on computer with all responsibility. Last but not the least, I am grateful to my faculty colleagues, staff of Library, Computer and Administration who always inspired and gave encouragement to complete the task.

We are sure that our efforts would bring a great change in transforming the lives of villagers living in cluster of villages around Bharthana and rural - urban divide would be narrowed.

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September 30, 2004

CONTENTS

	<u>Page No.</u>
Preface	<i>i-iii</i>
List of Tables	<i>v</i>
List of Figures	<i>vi</i>
1. Introduction	4-8
2. Available Amenities at a Glance	9
3. Methodology	10
4. Population Dynamics	10-18
5. Dependable Power Supply	18-20
6. Potable Water Supply	20-23
7. Road Transport	23-26
8. Telephone, Mobile, PCO, Internet and IT Services	26-29
9. Education	29-35
10. Health and Sanitation	35-38
11. Market and Allied Amenities	38-41

LIST OF TABLES

<u>Table No.</u>	<u>Titles</u>	<u>Page No.</u>
Table 1	Amenities which are Available in Proposed PURA Villages	9
Table 2	Population Structure, 2001	11
Table 3	Electricity Infrastructure: Existing and Proposed	19
Table 4	Potable Water Supply: Existing and Proposed	21
Table 5	Road Transport: Existing and Proposed	24
Table 6	Telephone, Mobile, PCO, Internet and IT Services: Existing and Proposed	27
Table 7	Education: Existing and Proposed	30-31
Table 8	Health and Sanitation: Existing and Proposed	36
Table 9	Market and Allied Amenities: Existing and Proposed	39
Table 10	Total Expected Expenditure under PURA-Bharthana	41

LIST OF FIGURES

<u>Figure No.</u>	<u>Titles</u>	<u>Page No.</u>
Fig.1	India - Location of Bharthana Town	1
Fig.2	Cluster of Villages Around Bharthana Town for PURA	2
Fig.3	Wall Map of Bharthana Block	3
Fig.4	Weekly Meeting at Bharthana Block	5
Fig.5	A Cultural Heritage of Bholi Village	7
Fig.6	Cluster of Villages Around Bharthana Town for PURA : Sex Ratio	12
Fig.7	Cluster of Villages Around Bharthana Town for PURA : Density of Population	14
Fig.8	Cluster of Villages Around Bharthana Town for PURA : Proportion of SC Population	15
Fig.9	Cluster of Villages Around Bharthana Town for PURA : Proportion of OBC Population	16
Fig.10	A Scene of Bholi Village	22
Fig.11	Cluster of Villages Around Bharthana Town for PURA : Existing and Proposed Road/Bridge	25
Fig.12	Cluster of Villages Around Bharthana Town for PURA : Literacy	28
Fig.13	Panchayat Ghar and Primary School in Kunwara Sujipur Village	32

FIG.1

E 68° 72° 76° 80° 84° 88° 92° E

INDIA

LOCATION OF BHARTHANA TOWN

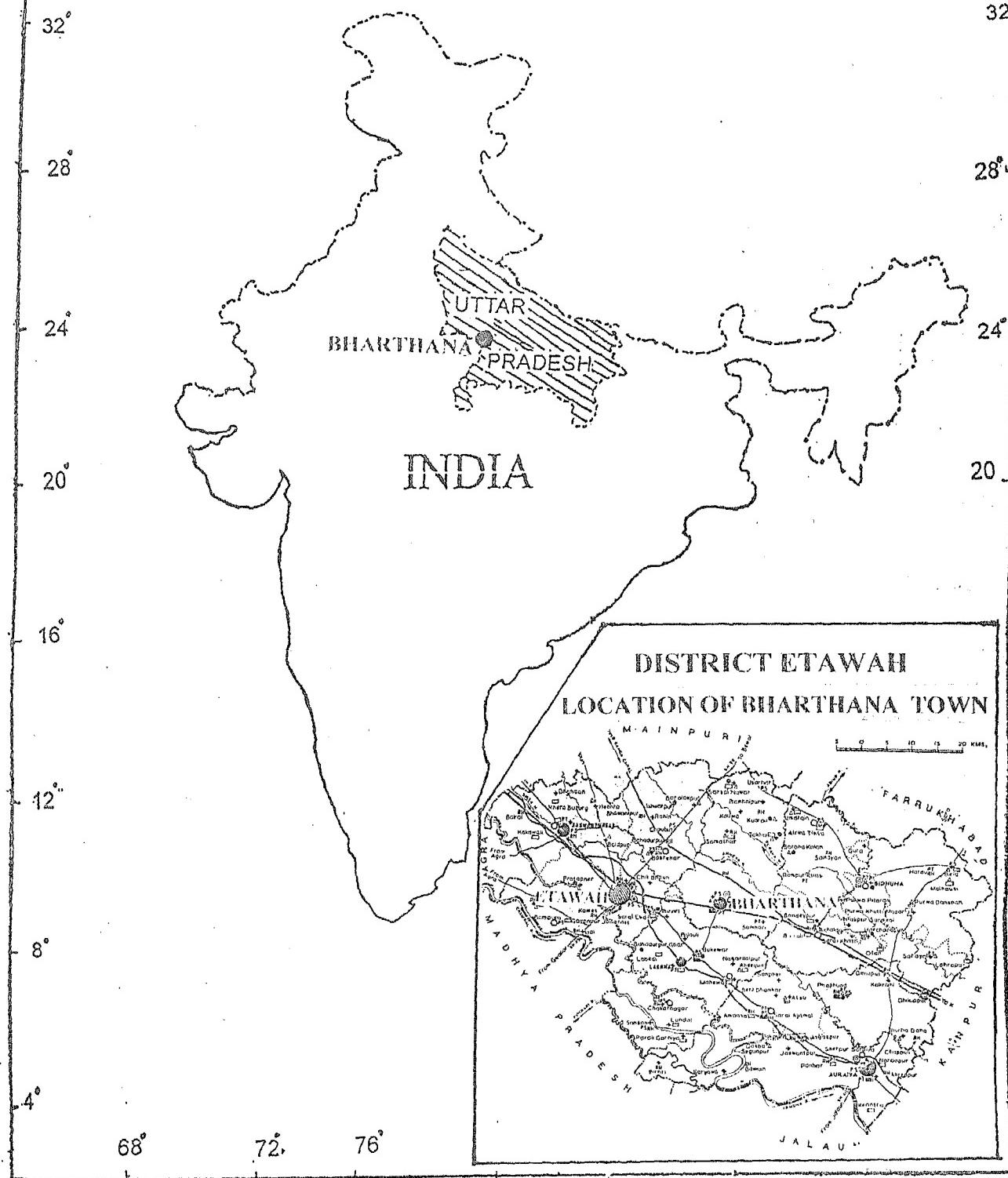
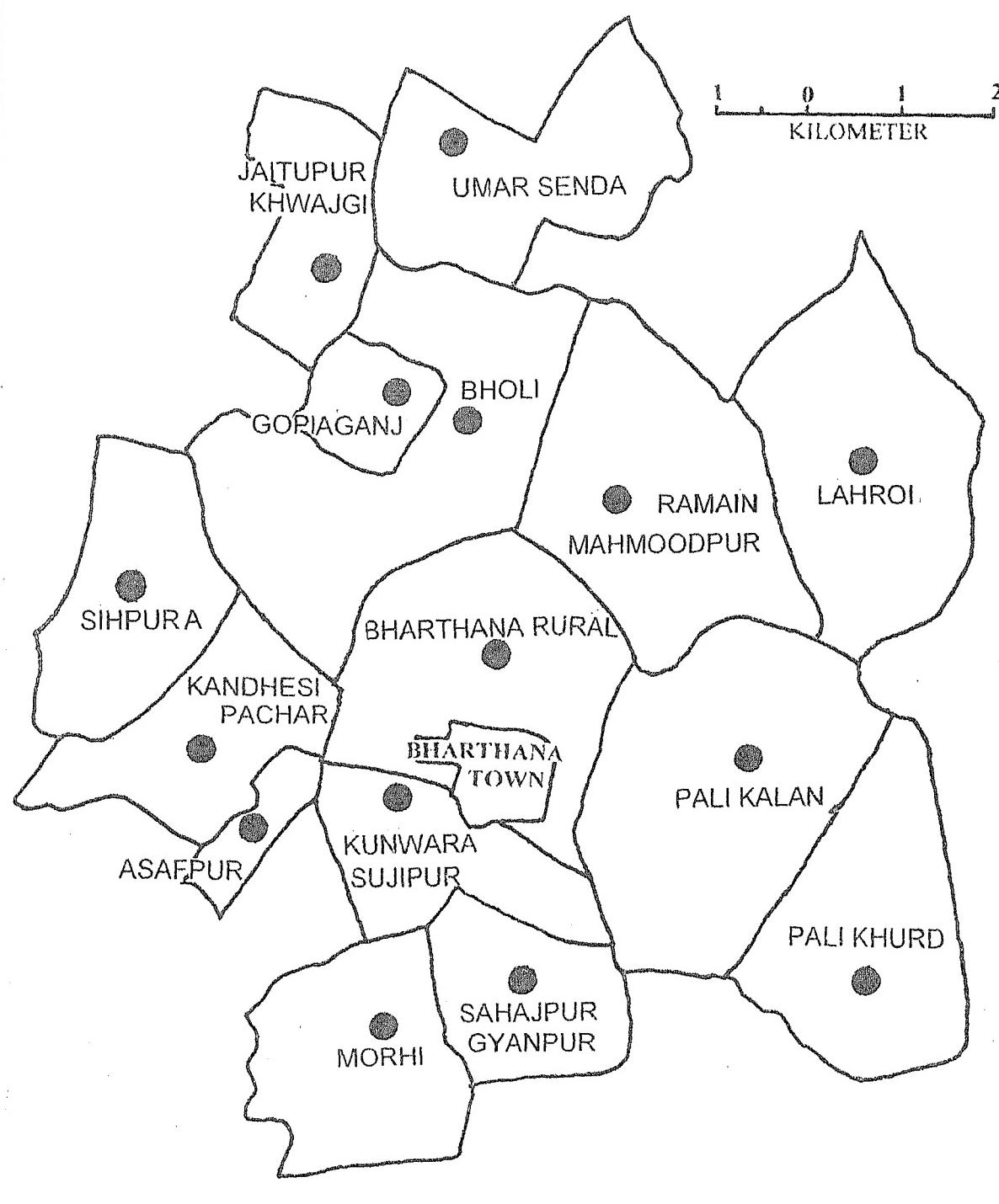


FIG. 2

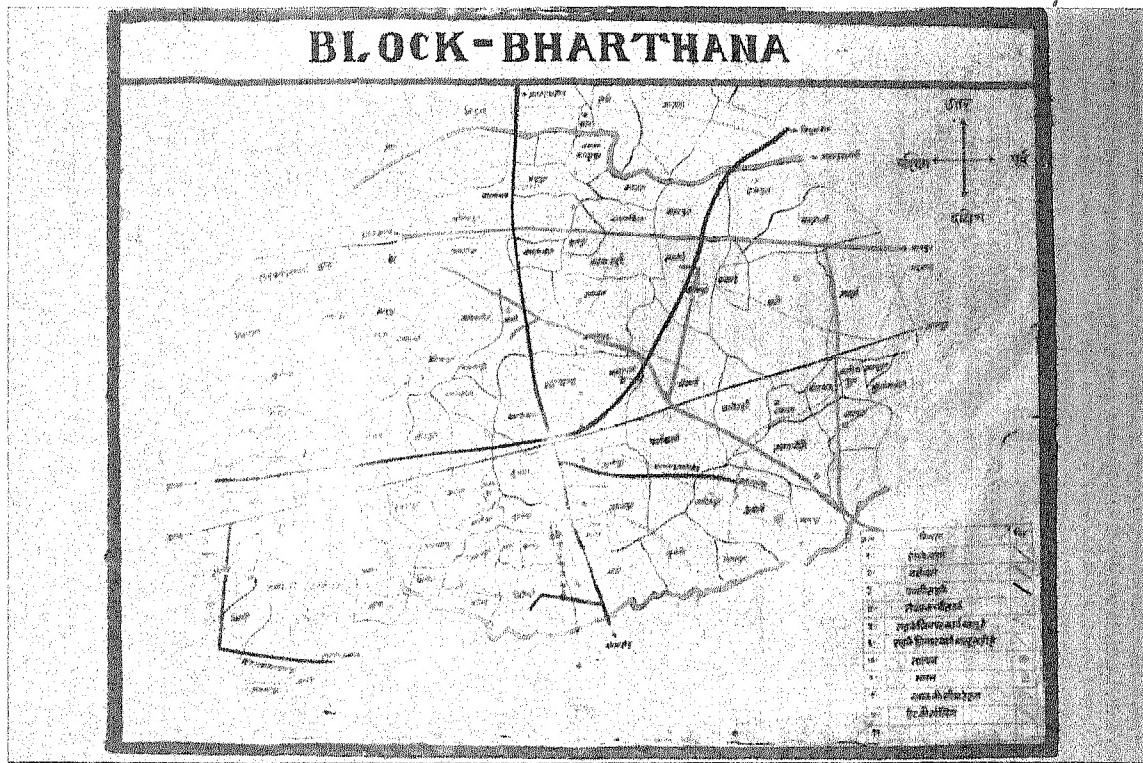
CLUSTER OF VILLAGES AROUND BHARTHANA TOWN FOR PURA

(BLOCK : BHARTHANA , DISTRICT: ETAWAH)



● VILLAGE SETTLEMENT

FIG.3: WALL MAP OF BHARTHANA BLOCK



As Hanging in BDO's Office

1. INTRODUCTION

Uttar Pradesh is the most populous state of India, which ranks seventh if compared with the countries of the world. In Uttar Pradesh out of total 166,052,859 population (Census, 2001) roughly about one-fifth is urban population living in about 684 towns/cities, which consist about 6734 identified slums. Most of these slums are in big cities, inhabited by mainly migrants from rural areas who migrate in search of employment. Since agriculture is not so capable to absorb all the working age population, therefore, industrialization - urbanization - industrialization is the only alternative to provide the livelihood. In India large metropolitan cities are growing very fast and creating an overall chaos, whereas the small and medium towns are growing quite slow or they are just stagnant. This lopsided growth creates regional imbalance and huge rural to urban (metropolitan) migration takes place. Immediately after Independence it was thought that rural to urban migration would take place step-wise: People from villages would first migrate to small towns and then after acquiring certain degree of urbanism, they would venture to migrate to metropolitan cities. This hypothesis has failed as the small and medium towns are nothing but simply they are large villages having no employment opportunities and with least urban amenities and incapable to attract and accommodate rural unemployed migrants. For example, from eastern U.P.

FIG.4: WEEKLY MEETING AT BHARTHANA BLOCK

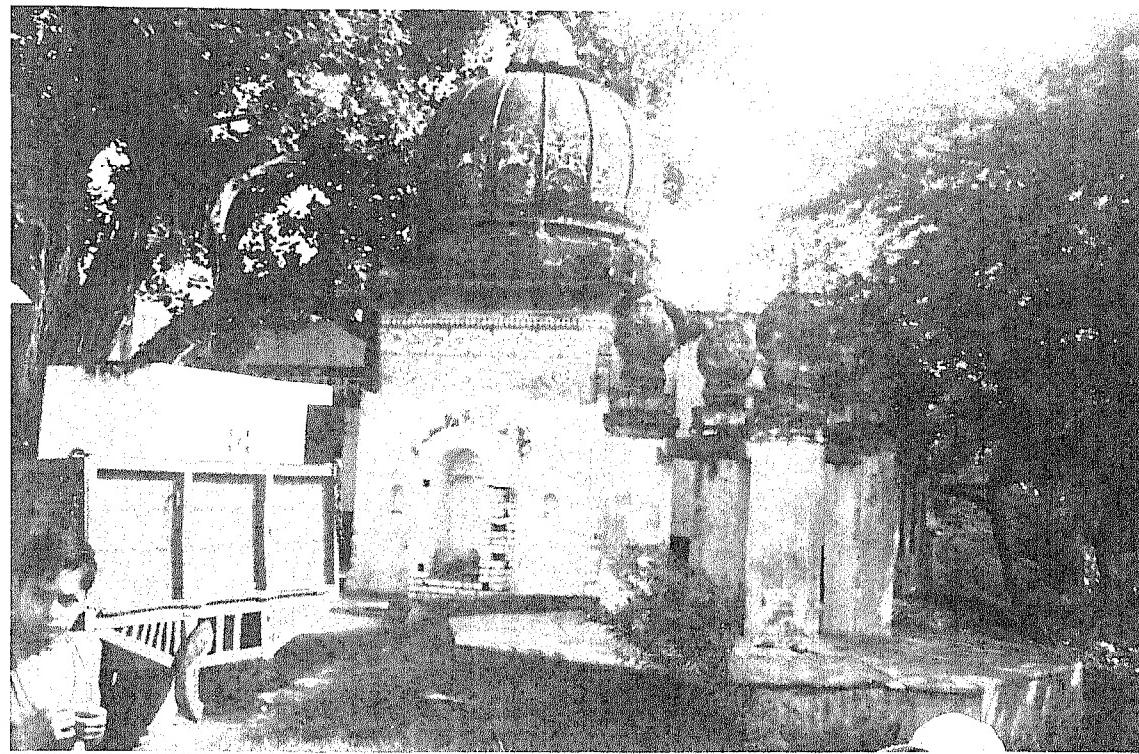


Village Development Officers are engaged in meeting at Conference Hall of BDO Office

large number of male population has migrated to cities of Western Uttar Pradesh, Delhi, Haryana and Punjab, which resulted into a very high sex ratio in places of out-migration leading to social chaos. Besides providing amenities in main towns, if the village clusters of fringe areas are also provided the urban amenities, towns would expand, it would attract industries and overall urban activities would grow. Thus, the unemployment and out-migration of the immediate neighbourhood can easily be tackled. Since PURA scheme is to be implemented in each district, definitely it would show a positive impact on overall urban scenario.

The Central scheme of Provision of Urban Amenities in Rural Areas (PURA) was announced by the Prime Minister in August 2003. The purpose of this scheme is to provide urban amenities in cluster of 10 to 15 villages around the fringe of a town of the size of 20,000 to 100,000 population. It is expected that it would help in reducing the great rural - urban divide and lead to a balanced socio-economic development in the district. The cluster of villages would be provided the following important amenities during a period of 2 - 3 years like:

1. Assured power supply
2. Potable water supply
3. Road transportation facilities
4. Dependable telephone, Internet and IT services
5. Systematic upgradation of existing schools/colleges
6. Upgradation of existing health services
7. Market facilities for farmers to get better prices of their produce.
8. Security through police patrol and police posts.

FIG.5: A CULTURAL HERITAGE OF BHOLI VILLAGE

A Shiva Temple, which is about two centuries old.

The government has decided to implement the PURA strategy in 5000 rural clusters across the country in the next five years. Bharthana has been selected as one such cluster for implementing the PURA scheme.

Bharthana town lies almost in the centre of Etawah district. District Etawah is on the Eastern bank of river Yamuna and it is adjoining to Chambal region, which is famous for dacoits influencing the entire district. The insecure life is one of the major reasons of the overall development of district Etawah. Bharthana town is managed by the Municipal Board. The total population of Bharthana town is 38,779 (2001), which grew to 58.75 per cent during 1971-2001. The PURA cluster consists the following 15 villages:

1. Kunwara Sujipur
2. Morhi
3. Umar Senda
4. Sihpura
5. Kandhesi Pachar
6. Asafpur
7. Jaitupur Khwajgi
8. Bholi
9. Bharthana Rural
10. Gopiyaganj
11. Ramain Mahmoodpur
12. Lahroi
13. Pali Kalan
14. Pali Khurd
15. Sahajpur Gyanpur

2. AVAILABLE AMENITIES AT A GLANCE

The following amenities are available in proposed PURA villages:

TABLE 1: AMENITIES, WHICH ARE AVAILABLE IN PROPOSED PURA VILLAGES

	Name of PURA Villages	Kharanja Road	Public Transport	Electricity	Telephone	Primary School (I-V Classes)	School (Up to VIII Classes)	High School	Intermediate College	Health Centres	Veterinary Hospital	Post Offices	Banks	Police Station	Tubewell	Weekly Market/Bazaar	Retail Shop		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Kunwara Sujipur	✓	✓	✓	✓	✓	X	X	X	X	✓	✓	X	X	X	X	X	✓	
2	Morhi	✓	✓	✓	✓	✓	✓	X	✓	X	X	X	X	X	X	X	X	✓	
3	Umer Senda	✓	✓	✓	✓	✓	✓	X	X	X	✓	✓	X	X	X	X	✓	✓	
4	Sihpura	✓	X	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	X	✓	
5	Kandhesi Pachar	✓	X	✓	X	✓	✓	X	X	X	✓	✓	X	X	X	X	X	✓	
6	Asafpur	✓	X	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	✓	
7	Jaitupur Khwajgi	✓	X	✓	X	✓	✓	X	X	X	X	X	X	X	X	X	X	✓	
8	Bholi	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	✓	✓	
9	Bharthana Rural	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	X	✓	
10	Gopiyaganj	✓	X	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X	✓	
11	Ramain Mahmoodpur	✓	X	✓	✓	✓	X	✓	X	X	X	✓	X	X	X	X	X	✓	
12	Lahroi	✓	X	✓	X	✓	✓	X	X	X	X	X	X	X	X	X	X	✓	
13	Pali Kalan	✓	X	✓	X	✓	X	X	X	X	X	X	X	X	X	X	X	✓	
14	Pali Khurd	✓	X	✓	X	✓	✓	X	X	✓	X	✓	X	X	X	X	X	✓	
15	Sahajpur Gyanpur	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	X	X	X	✓	

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA -Bharthana" Sponsored by DRDA- Etawah, August 2004

3. METHODOLOGY

For base study of cluster villages of Bharthana for PURA the secondary data was collected from the records of Census of India and maps were prepared. The extensive field survey was conducted for primary data by the expert research team of Giri Institute of Development Studies, Lucknow from village to village. Gram Pradhans were contacted to discuss the overall village problems and to tally with their official records. Block Development Officials of Bharthana block were involved along with the Institute's expert research team to collect the data and ascertain the validity of data. On the basis of Census and field survey the required tables were prepared for analysis purposes.

4. POPULATION DYNAMICS

Among the cluster of villages the maximum population is 4733 (2001) in Pali Khurd village and lowest is 713 in Asafpur village. The large size of population in villages depends upon nearness to Bharthana town, road accessibility and availability of agricultural land. The growth of population during two decades 1981-2001 in Bharthana town was 58.8 per cent. The highest growth of population during the same period was 100.9 per cent in village Bharthana Rural. The lowest growth of population was recorded in Pali Khurd, i.e. 23.5 per cent. In all the cluster villages, the

TABLE 2 : POPULATION STRUCTURE, 2001

S. No.	Name of PURA Villages	Area (Hectare)	Total population	No. of Households	Size of Household	Population Density (per Hectare)	Sex Ratio	Caste wise Percentage of Population		
								Forward	Backward	Scheduled caste
1	2	3	4	5	6	7	8	9	10	
1	Kunwara Sujipur	365.04	4104	692	5.93	11.24	810	10.00	40.00	50.00
2	Morhi	468.24	2729	513	5.32	5.83	865	3.75	75.00	21.25
3	Umer Senda	477.55	2777	458	6.06	5.82	853	10.00	80.00	10.00
4	Sihpura	284.10	793	119	6.66	2.79	893	0.00	80.00	20.00
5	Kandhesi Pachar	570.63	2468	466	5.30	4.33	857	46.43	17.86	35.71
6	Asafpur	67.58	713	115	6.20	10.55	932	15.00	33.33	51.67
7	Jaitupur Khwajgi	222.18	1024	148	6.92	4.61	879	0.00	60.00	40.00
8	Bholi	783.50	3639	601	6.05	4.64	824	16.31	48.91	34.78
9	Bharthana Rural	715.91	4153	731	5.68	5.80	838	3.00	60.00	37.00
10	Gopiyaganj	153.38	1581	257	6.15	10.31	869	12.50	56.25	31.25
11	Ramain Mahmoodpur	696.89	4272	708	6.03	6.13	901	37.28	31.36	31.36
12	Lahroi	619.60	2671	420	6.36	4.31	840	22.58	64.52	12.90
13	Pali Kalan	992.73	3265	541	6.04	3.29	860	9.09	81.82	9.09
14	Pali Khurd	571.84	4733	782	6.05	8.28	850	11.06	78.86	10.08
15	Sahajpur Gyanpur	335.90	1520	205	7.41	4.53	881	5.00	70.00	25.00

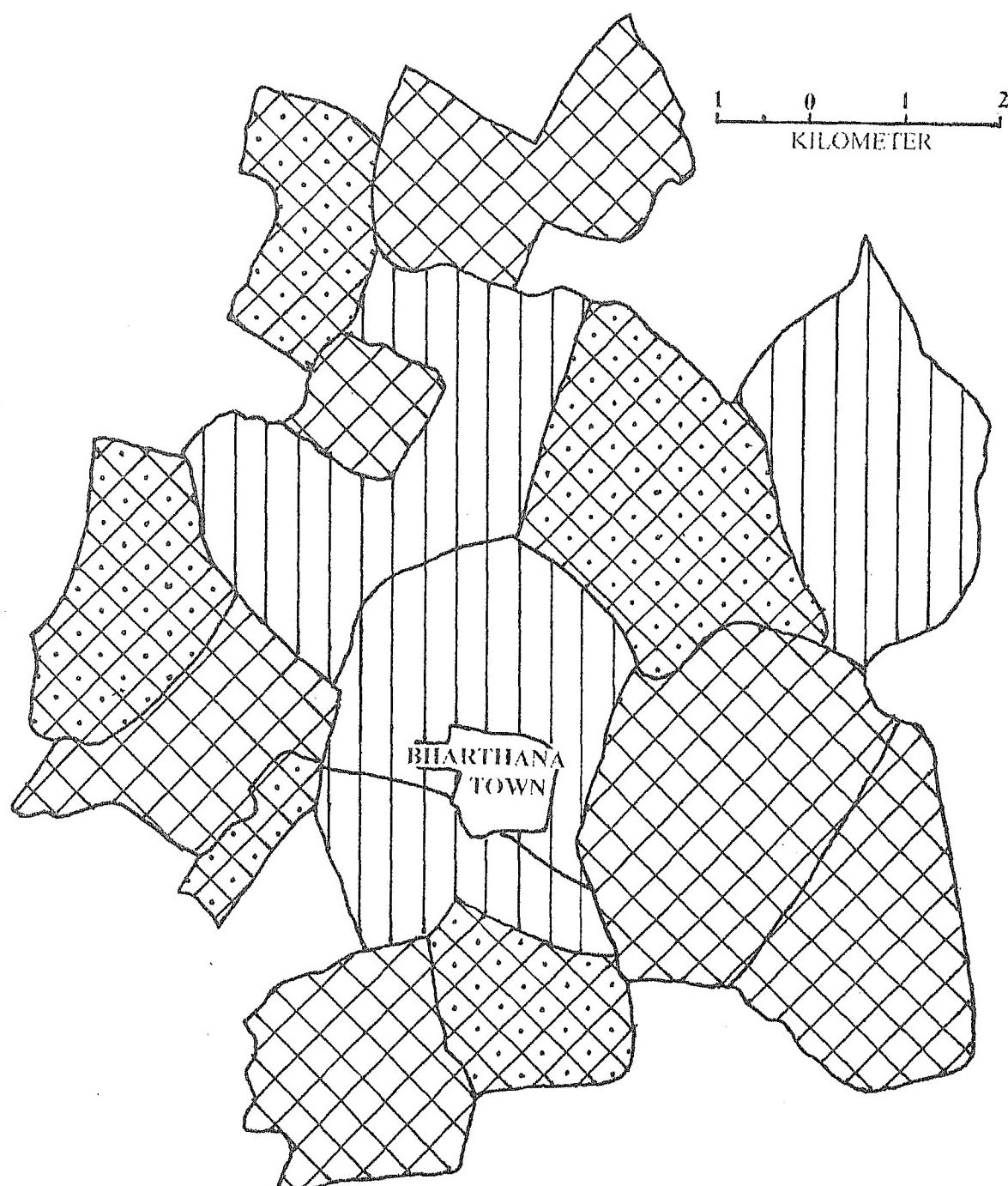
Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA -Bharthana" Sponsored by DRDA- Etawah, August2004

FIG. 6

CLUSTER OF VILLAGES AROUND BHARTHANA TOWN FOR PURA

(BLOCK : BHARTHANA, DISTRICT: ETAWALL)

SEX RATIO



FEMALE S PER THOUSAND MALES

875>

850-875

<850

average growth rate of population was about fifty per cent. Another unique feature emerges that during twenty years the growth rate of female population than the males is quite high in all the cluster villages except in Kandhesi Pachar village. This shows that the sex ratio has increased from 1981 census to 2001 census. It is also worth to mention that the growth rate of households in cluster villages is comparatively lower than the growth rate of population, which suggests that the size of households are having an increasing trend from 1981 to 2001.

The sex ratio is highest 932 in village Asafpur and 901 in village Ramain Mahmoodpur. The lowest sex ratio is recorded 810 in village Kunwara Sujipur. The comparative higher sex ratio indicates the male out-migration for earning the livelihood or for getting the higher or better education. In Bharthana town also the sex ratio is comparatively higher, i.e., 903, which is also due to out-migration of male working population, as these small towns are as good as large villages, where employment opportunities and urban amenities are lacking.

About half of the population is Scheduled Castes in Asafpur and Kunwara Sujipur villages, i.e. 51.7 and 50.0 per cent respectively. The lowest proportion of Scheduled Castes population is found 9.1 per cent in village Pali Kalan. The overall socio-economic condition of Scheduled Caste population is quite deplorable than the backward and forward castes.

FIG. 7

CLUSTER OF VILLAGES AROUND BHARTHANA TOWN FOR PURA
 (BLOCK : BHARTHANA , DISTRICT: ETAWAH)
DENSITY OF POPULATION

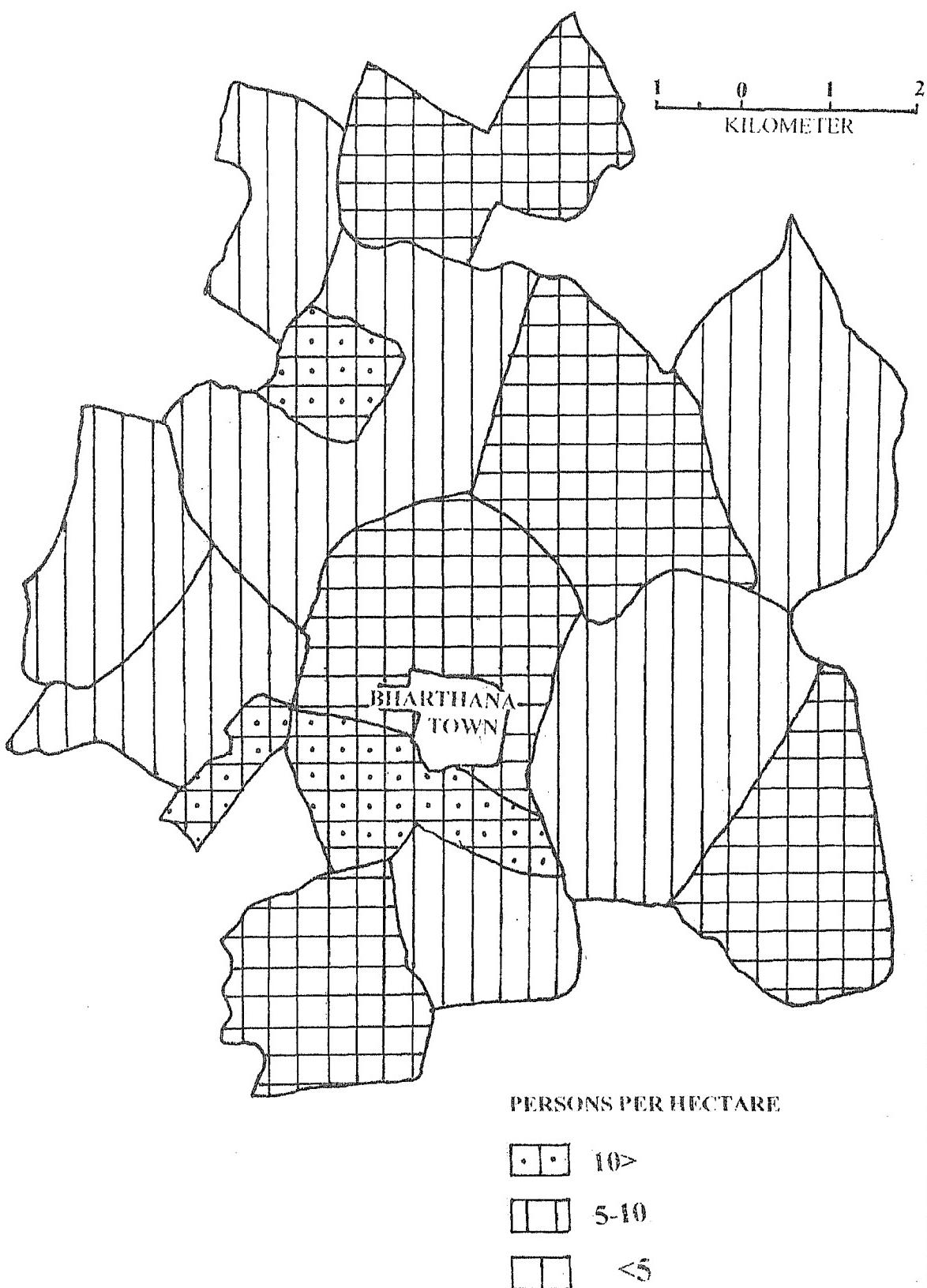


FIG. 8

CLUSTER OF VILLAGES AROUND BHARTHANA TOWN FOR PURA
 (BLOCK : BHARTHANA, DISTRICT: ETAWAH)
PROPORTION OF SC POPULATION

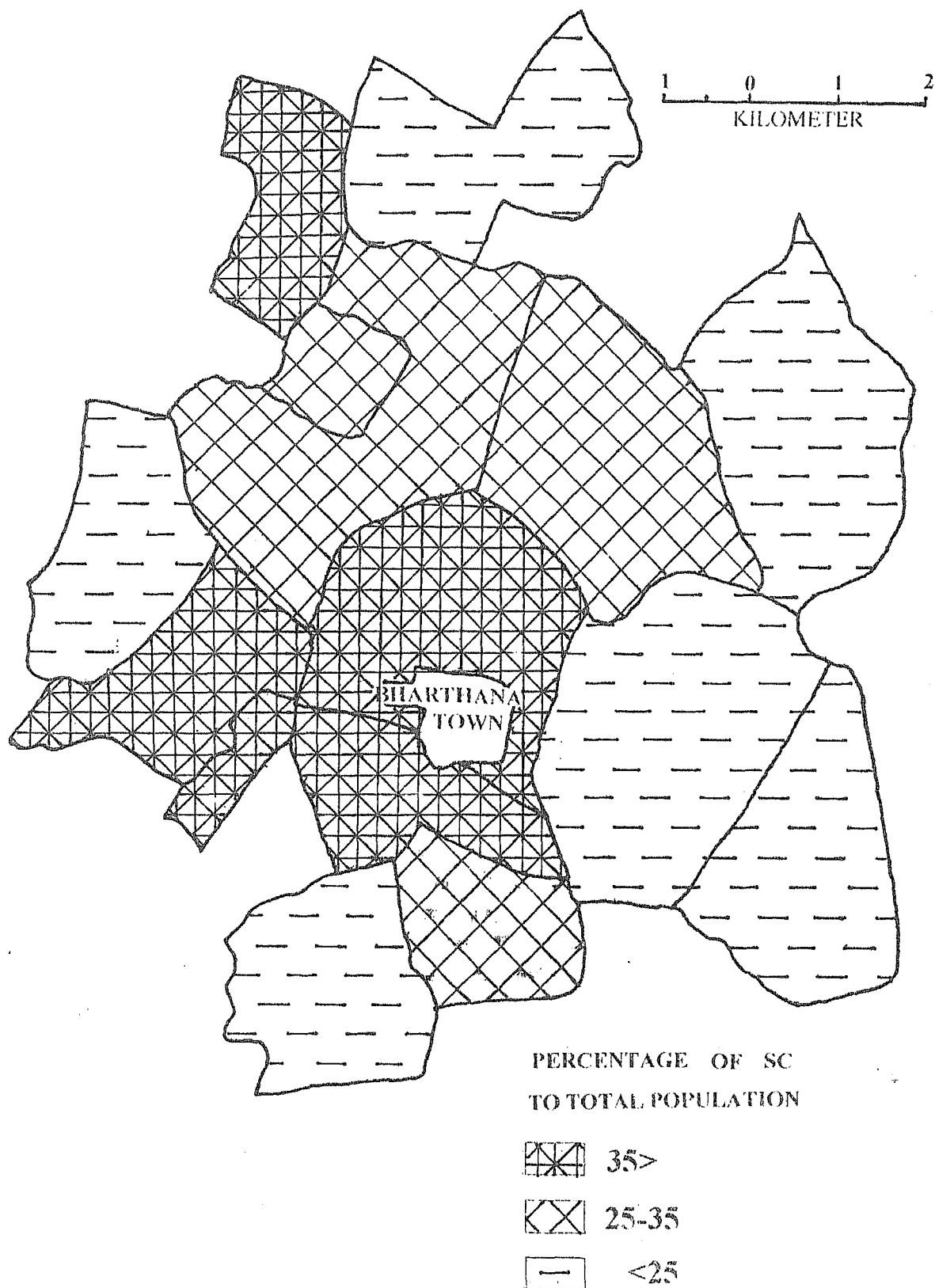
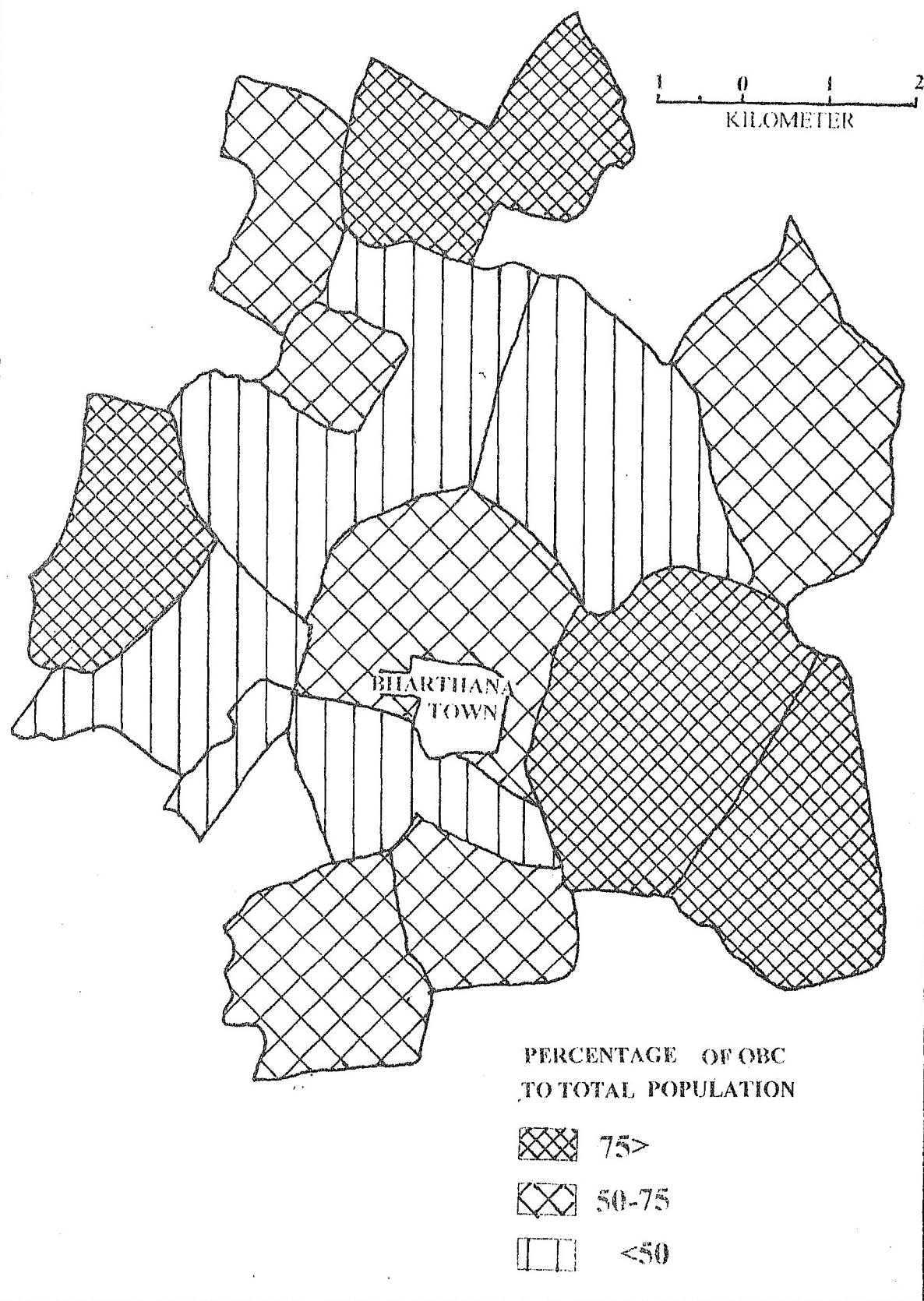


FIG. 9

CLUSTER OF VILLAGES AROUND BIARTHANA TOWN FOR PURA
 (BLOCK : BIARTHANA, DISTRICT : ETAWALI)
PROPORTION OF OBC POPULATION



In all the cluster villages the Backward Caste population, mainly belonging to Yadava community is dominating in economy and number both. Out of 15 cluster villages, in 10 villages backward caste population is in majority, ranging from 56 to more than 80 per cent. Forward caste community is nowhere in majority and in 12 villages they are less than 20 per cent. In Sihpura and Jaitupur Khwajgi villages, there is no forward caste population.

Area-wise the largest village is Bholi occupying 783.5 hectares, whereas the smallest village is Asafpur occupying only 67.6 hectares of area. The maximum population density per hectare is in Kunwara Sujipur, Asafpur and Gopiyaganj with 11.2, 10.6 and 10.3 persons per hectare respectively. Villages Sihpura and Pali Kalan are with 2.8 and 3.3 population density respectively, which is lowest. Average household size varies from village to village according to the custom, culture and economy, as the average large household size of 7.4 persons is found in Sahajpur Gyanpur and the lowest size of 5.3 persons in Kandhesi Pachar.

The working age populations of villages who are unable to get their livelihood migrate to urban areas (mainly large cities). Beyond agriculture the employment avenues in other sectors are almost negligible in villages, because of lack of basic infrastructure like uninterrupted power supply, road transport facilities, health and sanitation, banking facilities,

educational Institutions, post offices and telecommunication facilities and marketing, etc.

Provision of Urban Amenities in Rural Areas (PURA) can be implemented in the following order in light of already existing schemes:

SI.No.	PURA PLAN	Existing Schemes
1.	Land and housing loan: Land Use planning: Reserving places for parks, burial grounds, playgrounds, religious places, community centres, bazaar/markets, library, staff quarters, NGOs, protection of reserve forests	C.C.Y., I.A.Y., ANTYODAYA
2.	Roads, drains, bridges and public transport	
3.	Environment protection, sanitation, waste disposal, potable water supply	R.G.D.W.P., R.C.P., Nishulk Boring
4.	Health Centres , doctor on move, pharmacists, Local awareness training for good health	
5.	Veterinary Centres	
6.	Electricity: Street Light and easy electric/power connection in residential and work areas	
7.	PCO and IT Kiosks in cluster areas	
8.	Education: Primary, Middle, High School and Intermediate, Popularization of NEOS and employment oriented education like Dairy, poultry and other agro-based, etc.	SCHOLARSHIP, MID-DAY MEAL
9.	Identification of resources: Agricultural innovations, industry, horticulture, etc. Environmentally sustainable development with the emphasis on non-agricultural activities.	S.G.S.R.Y., S.G.R.Y., S.C.P.(for SC), ANPOORNA, JRY, SEEDS/PLANTATION
10.	Entertainment: Encouragement and training in wrestling, boxing and other physical activities	
11.	Social Security: Police and Community Guards	W.O.H.P.Y., W.D.M.P.
12.	Maintenance: Besides Government arrangements, Community Volunteers.	

5. DEPENDABLE POWER SUPPLY

Though electricity supply lines are existing in cluster villages and almost all the households are using electricity, but officially only few houses are legally connected with electricity. Most of the households have drawn

Table 3: ELECTRICITY INFRASTRUCTURE: EXISTING AND PROPOSED

S. No.	Name Of Village	Existing Electric Infrastructure			Infrastructure Proposed			Amount Required in Rs.
		Sub Station	L.T. Line (km)	Percentage Houses without electricity	No. Of Poles	Length of Wires(M)	Sub Station	
1	2	3	4	5	6	7	8	
1	Kunwara Sujipur	-	6.00	60.00	15	500	1	620,000
2	Morhi	-	1.50	92.00	15	750	-	150,000
3	Umer Senda	-	2.00	90.00	75	3000	1	1,160,000
4	Sihpura	-	1.00	95.00	20	800	-	176,000
5	Kandhesi Pachar	-	2.50	50.00	50	2000	-	440,000
6	Asafpur	-	1.00	95.00	40	1500	-	340,000
7	Jaitupur Khwajgi	-	1.00	98.75	10	500	-	100,000
8	Bholi	-	0.50	94.00	20	1000	1	700,000
9	Bharthana Rural	-	0.50	80.00	100	4000	-	880,000
10	Gopiyaganj	-	1.00	90.00	60	2000	-	480,000
11	Ramain Mahmoodpur	-	3.00	96.61	100	4000	-	880,000
12	Lahroi	-	1.00	97.14	100	4000	-	880,000
13	Pali Kalan	-	3.00	90.00	30	1500	-	300,000
14	Pali Khurd	-	5.00	89.58	100	4000	1	1,380,000
15	Sahajpur Gyanpur	-	1.50	95.00	50	2000	-	440,000
							Total	8,926,000

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA -Bharthana" Sponsored by DRDA- Etawah, August 2004

the electric lines (through Katiya) from poles illegally. Also, the power supply in villages is uncertain not only in terms of hours but in days and no activity can depend upon it. Only in Kunwara Sujipur and Kandhesi Pachar about 40 to 50 per cent houses are legally connected with electricity, but in rest of the villages more than 80 per cent houses are without legal connection of electricity. This anomaly has to be seriously taken up by the electricity department but of course the regular and reliable power supply is the right of the consumers.

To extend the electric lines/poles at the door steps of remaining village houses, an estimate has been worked out that about 785 electric poles and about 31550 metres length of electric wires are required for complete electrification. Another important infrastructure is of sub-station, which is estimated that at present 4 sub-stations would serve the purpose. About Rs.8,926,000 amount is required for complete electrification works in all the cluster villages.

6. POTABLE WATER SUPPLY

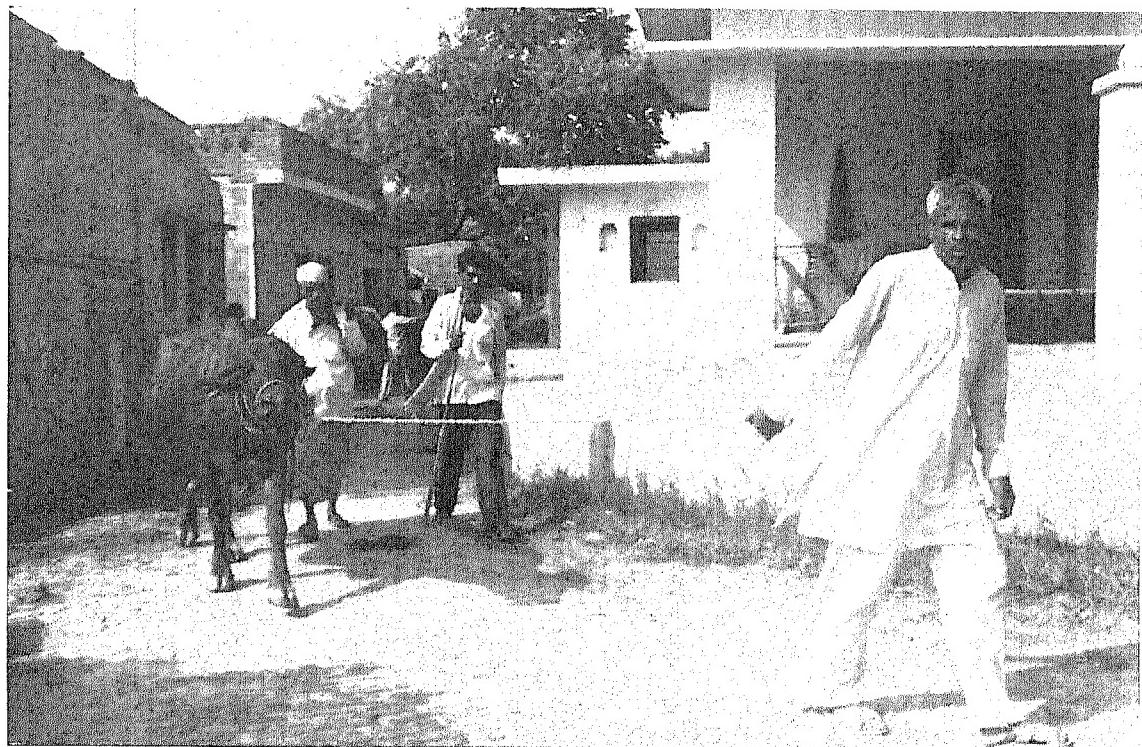
In all the cluster villages there is no public water supply system. Households are either using their own hand pumps, which are within the residential premises or households fetch water from the roadside public handpumps India Mark-II. Ground water is available at about 30 feet deep from the ground surface and most of the private hand pumps are installed

TABLE 4: POTABLE WATER SUPPLY: EXISTING AND PROPOSED

S. No.	Name of Village	Existing			Tubewells Proposed	Amount Required in Rs.
		Houses with hand pump	% Houses without water source	Village Hand Pump Mark-II		
1	2	3	4	5	6	
1 Kunwara Sujipur	346	50.00	23	1	2,000,000	
2 Morhi	51	90.00	39	-	-	
3 Umer Senda	173	62.14	39	1	2,000,000	
4 Sihpura	24	80.00	18	-	-	
5 Kandhesi Pachar	78	83.33	30	-	-	
6 Asafpur	86	25.00	15	1	2,000,000	
7 Jaitupur Khwajgi	44	70.00	20	-	-	
8 Bholi	50	91.62	36	1	2,000,000	
9 Bharthana Rural	439	40.00	38	1	2,000,000	
10 Gopiyaganj	150	41.67	35	-	-	
11 Ramain Mahmoodpur	24	96.64	31	-	-	
12 Lahroi	150	64.29	24	-	-	
13 Pali Kalan	180	66.67	25	-	-	
14 Pali Khurd	98	87.50	94	1	2,000,000	
15 Sahajpur Gyanpur	77	62.50	19	-	-	
				Total	12,000,000	

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA-Bharthana" Sponsored by DRDA- Etawah, August 2004

FIG.10: A SCENE OF BHOLI VILLAGE



A Buffalo is being taken out to be sold at Bharthana Town.

in shallow waters, which is not good for health. Waterborne diseases are common among the villagers. There is a popular demand that households should be provided the treated tap water by public water supply system. Majority of the households depends on India Mark-II, which are installed on roadsides and valuable time is wasted in fetching the water from distant areas.

Tubewells pump water from deep strata, which is safe from health point of view, as contamination due to seepage is not easily possible from ground surface. It is estimated that approximately for 10,000 population a Tubewell is required, which costs Rs.12,00,000/- and in all six tubewells would serve the purpose, which would cost Rs.72,00,000/-. Overall cost of tubewells and pipelines together would roughly go to Rs.12,000,000/-.

7. ROAD TRANSPORT

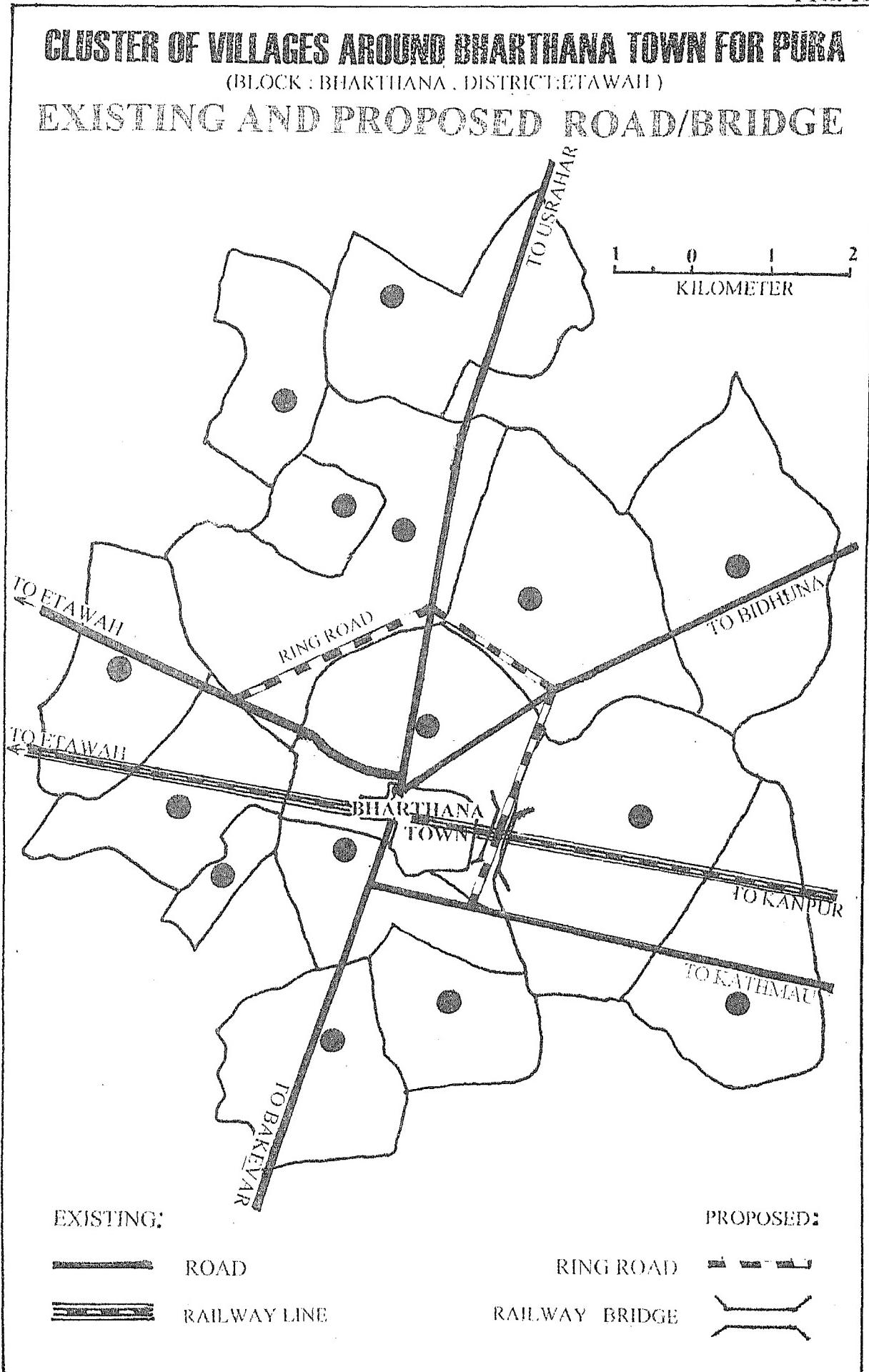
Urbanisation, industrialisation, modernisation and now globalisation go side by side with efficient transport system and road transport is an important part of the developments. Though villages are connected by roads, but yet about 1962 houses are or roughly one-third households without any approach roads. The maximum houses face the road connectivity problems are in villages, Kunwara Sujipur 74.13, Lahroi 57.14, Sahajpur Gyanpur 53.17, Bholi 44.76, Asafpur 41.74, Gopiyaganj 38.52, Romain Mahmoodpur 38.42 and Kandesu Pachar 37.98 per cent. By rough estimates about 29,500 metres of

TABLE 5: ROAD TRANSPORT: EXISTING AND PROPOSED

S. No.	Name of Village	Kharanja road		Kharanja Road and Culverts to be repaired*		Amount Required for Kharanja Road Rs.
		Percentage of Houses without	Required in (M)	Length Road (M)	No. of Culverts	
1	2	3	4	5	6	
1	Kunwara Sujipur	74.13	2000	-	1	1000,000
2	Morhi	2.73	1000	-	-	500,000
3	Umer Senda	3.28	500	-	-	250,000
4	Sihpura	-	-	-	-	-
5	Kandhesi Pachar	37.98	4000	1000	-	2000,000
6	Asafpur	41.74	2000	-	-	1000,000
7	Jaitupur Khwajgi	-	-	-	-	-
8	Bholi	44.76	5000	6000	-	2500,000
9	Bharthana Rural	15.73	2000	-	-	1000,000
10	Gopiyaganj	38.52	1000	500	-	500,000
11	Ramain Mahmoodpur	38.42	7000	6000	2	3500,000
12	Lahroi	57.14	2000	-	-	1000,000
13	Pali Kalan	9.24	1000	500	-	500,000
14	Pali Khurd	5.24	1000	1000	-	500,000
15	Sahajpur Gyanpur	53.17	1000	-		500,000
				Total		14,750,000
		For Repair of Road & Culverts*				2,000,000
		Cost of Ring Road				20,000,000
		Cost of over Head road Bridge				25,000,000
		Grand Total				61,750,000

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA-Bharthana" Sponsored by DRDA- Etawah, August 2004

FIG. 11



Kharanja roads are to be constructed for which the cost has been worked out to be Rs.14,750,000/- . It was found that 3 culverts and about 15,000 metres of Kharanja roads are to be repaired in cluster villages, for which roughly Rs.2,000,000/- are earmarked. All the roads connecting Bharthana town pass through the heart of the town where traffic congestion and pollution are the regular features. To avoid the traffic jam, congestion and pollution in Bharthana town, it is proposed to construct a ring road as shown in the map, which would be roughly 10 kms. and the cost would be nearly Rs.20,000,000/. The Delhi-Hawrah railway line which passes through Bharthana town and also passes through Etawah city creates maximum jam, as the trains are passing quite frequently. Therefore, for overall development it is proposed to construct an overhead road bridge to avoid the traffic jams and wastage of valuable time while crossing the railway line. The cost of overhead road bridge is estimated to be Rs.25,000,000/. The overall cost on road transport is estimated to be Rs.61,750,000/-, which seems to be quite reasonable.

8. TELEPHONE, MOBILE, PCO, INTERNET AND IT SERVICES

Fast transfer of information is the need of the days, when globalisation has shrank the world. Now each and every village has to be efficiently connected within the country and globe as a whole. Out of 15 cluster villages, 9 villages are having telephone lines, when six villages are yet to be connected.

**TABLE 6: TELEPHONE, MOBILE, PCO, INTERNET AND IT SERVICES:
EXISTING AND PROPOSED**

S. No.	Name of Village	% Houses connected with telephone	No. of mobiles/ 1000 population	No. of P.C.O.	Internet/ IT Services in Village Yes/No	Amount Required for PCO, internet, I.T. in Rs.
1		2	3	4	5	6
1	Kunwara Sujipur	2.89	2.44	2	1	Through Government employment schemes, loans to unemployed. Total amount Rs. 2,000,000
2	Morhi	1.17	2.56	1	No	
3	Umer Senda	4.37	2.52	2	No	
4	Sihpura	5.88	12.61	-	No	
5	Kandhesi Pachar	-	4.05	-	No	
6	Asafpur	6.09	16.83	-	No	
7	Jaitupur Khwajgi	-	11.72	-	No	
8	Bholi	1.66	1.10	-	No	
9	Bharthana Rural	1.37	0.96	1	No	
10	Gopiyaganj	-	2.53	-	No	
11	Ramain Mahmoodpur	2.82	1.17	2	No	
12	Lahroi	-	1.87	-	No	
13	Pali Kalan	-	2.45	-	No	
14	Pali Khurd	-	4.23	-	No	
15	Sahajpur Gyanpur	3.90	1.32	-	No	

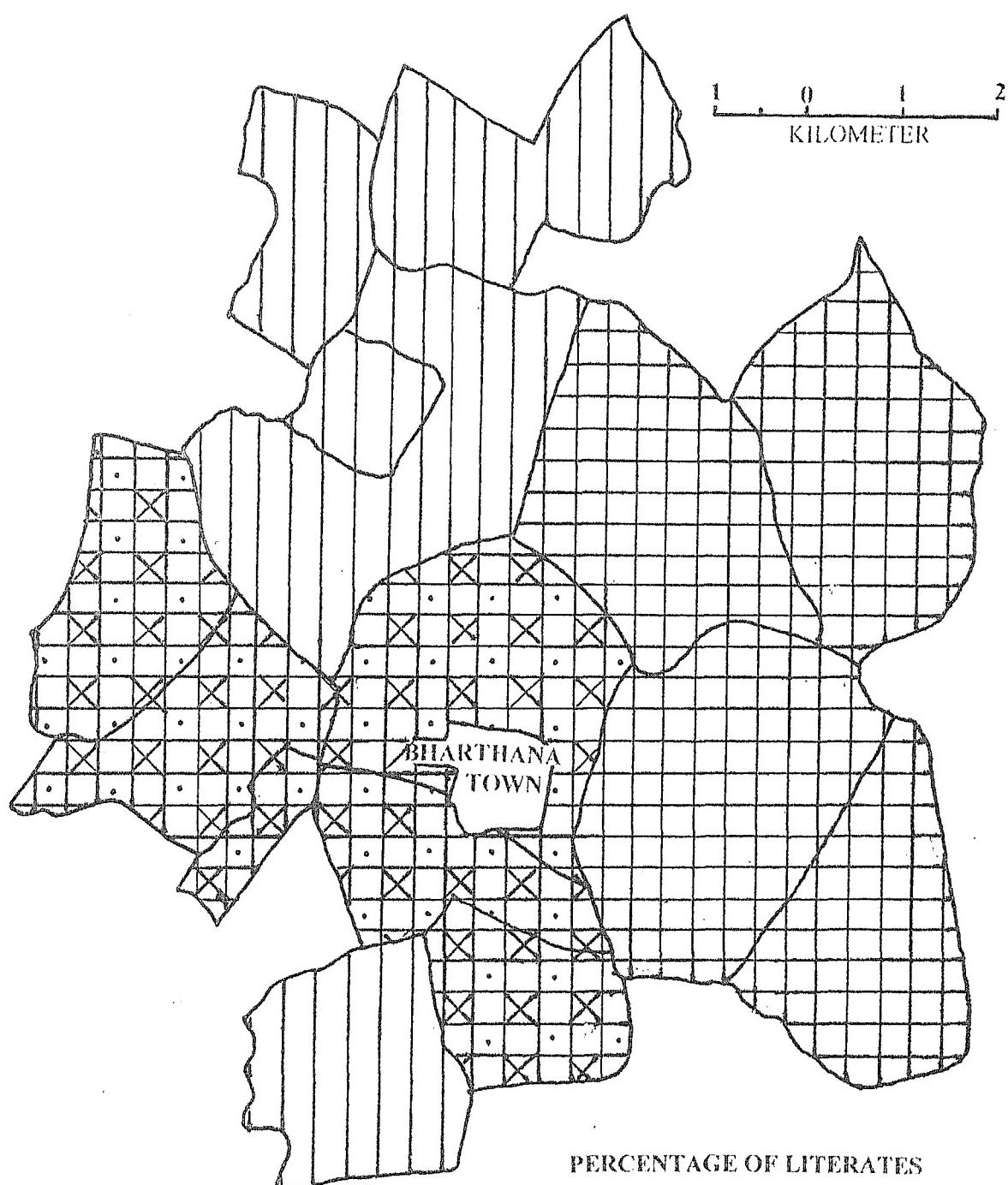
Source: Based on survey conducted by the author and his team of Giri Institute
of Development Studies, Lucknow, for the project "PURA-Bharthana"
Sponsored by DRDA- Etawah, August 2004

FIG. 12

CLUSTER OF VILLAGES AROUND BHARTHANA TOWN FOR PURA

(BLOCK : BHARTHANA , DISTRICT ETAWAH)

LITERACY



PERCENTAGE OF LITERATES
TO TOTAL POPULATION

>60

55-60

<55

In only five villages, i.e. Kunwara Sujipur, Morhi, Umer Senda, Bharthana Rural and Ramain Mahmoodpur, the PCO services are available and the rest 10 villages have no PCO at all. Except Kunwara Sujipur village, nowhere any Internet or IT services are available. It is proposed that through government employment scheme, the poor unemployed youths may be provided loans to open PCO/Internet or IT services in the villages.

9. EDUCATION

If we have to compete the world, then we have to analyze the level of education of Indian people and accordingly time bound goals are to be set up without further loss of time. Education or enlightenment is the mother of all development, without which we would be far behind when the globalisation culture is fast entering in our day-to-day activities. It is heartening to note that slightly more than half of the population is literate in cluster villages except in Umer Senda village where literacy is still below fifty per cent among people. In comparison to males, female literacy is far behind, which suggests that besides overall efforts, the special and careful efforts are required for better education. Unlike western countries, our traditional society does not prefer the females to be educated in co-education schools, therefore, girls' schools are to be opened for enhancing effective education among females. The heavy drop-outs in higher classes

TABLE 7: EDUCATION: EXISTING AND PROPOSED

S. No.	Name Of Village	Percentage Literacy (2001)		EXISTING		EXISTING		No. of Students		No. of Teachers	
				No. of Primary School		No. of Secondary Schools		Percentage of School Area			
		Total	Male	% Female	No. Open Area	Total	Male	% Female	No. Open Area	Total	Male
1	1	2	3	4	5	6	7	8	9	10	11
1	Kunwara Sujipur	55.26	63.62	44.93	1	20.00	80.00	128	77	51	5
2	Morhi	54.82	61.93	46.60	2	40.00	60.00	195	117	78	7
3	Umer Senda	48.40	59.24	35.68	2	50.00	50.00	247	136	111	4
4	Sihpura	60.15	72.79	45.99	2	55.56	44.44	420	273	147	4
5	Kandhesi Pachar	61.71	71.41	50.39	1	40.00	60.00	264	185	79	2
6	Asafpur	61.15	70.73	50.87	2	40.00	60.00	64	42	22	6
7	Jaitupur Khwajgi	53.91	63.49	43.00	2	30.00	70.00	179	125	54	3
8	Bholi	53.92	65.06	40.39	2	30.00	70.00	237	134	103	7
9	Bharthana Rural	61.09	70.39	50.00	1	30.00	70.00	74	42	32	2
10	Gopiyaganj	54.02	65.25	41.09	1	50.00	50.00	198	129	69	2
11	Ramain Mahmoodpur	55.15	64.09	45.23	2	15.38	84.62	155	85	70	4
12	Lahroi	56.98	69.15	42.49	2	46.67	53.33	388	233	155	7
13	Pali Kalian	58.81	67.01	49.27	2	28.57	71.43	445	267	178	5
14	Pali Khurd	65.62	73.23	56.67	3	42.86	57.14	330	214	116	7
15	Sahaipur Gyanpur	57.70	66.46	47.75	2	40.00	60.00	199	129	70	4

TABLE 7: Continued

S. No.	Name Of Village	EXISTING			EXISTING			PROPOSED											
		No. of High School	Percentage of School Area	No. of Students	% Open Area	Total	Male	Female	No. of Intermediate School	No. of Teachers	High School	Intermediate	Amount required for construction in Rs.						
1	Kunwara Sujipur	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
2	Morhi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000,000
3	Umer Senda	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Sihpura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Kandhesi Pachar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Asafpur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Jaitupur Khwajgi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Bholi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Bharhana Rural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000,000
10	Gopiaganj	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,000,000
11	Ramnagar Mahmoodpur	1	20.00	80.00	117	62	55	6	-	-	-	-	-	-	-	-	-	-	1,500,000
12	Lahroi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,500,000
13	Pali Kalan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,500,000
14	Pali Khurd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,500,000
15	Sahajpur Gyanpur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																			Total 18,000,000

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA-Bharhana" Sponsored by DRDA- Etawah, August 2004

**FIG.13: PANCHAYAT GHAR AND PRIMARY SCHOOL
IN KUNWARA SUJIPUR VILLAGE**



Both are in one campus.

among female students is the result of our wrong policies in providing the educational institutions without clear perception about females in our society. Quite a good proportion of male and female children go out of their villages for better education, may be even from primary to higher education. The unnecessary burden of travelling by students for distant educational institutions can be avoided at least at primary to Intermediate level by planned location of schools and colleges.

More or less in all the cluster villages the primary schools are provided and the maximum three primary schools are located in only Pali Khurd village. Except in Kandhesi Pachar, Bharthana Rural and Gopiyaganj villages, one primary school in each is located and in rest of the villages two primary schools in each are provided. In most of the schools the built up area ranges between one-third to half except in Ramain Mahmoodpur and Kunwara Sujipur where about one-fifth area of the school campus is under building. The more the area is openly available for children to play, it is better for a healthy environment. In Asafpur and Bharthana Rural villages the number of students are quite less, i.e. 64 and 74 respectively. In all the primary schools the number of female children are less than the male children, even in few schools females are about half than the males. The numbers of primary school teachers are not according to the strength of the school, rather they are randomly posted ranging between two to seven teachers in each school. No new primary schools are proposed, but rather the existing schools are to be strengthened and qualitative additions are proposed.

Middle schools are not provided in each village, as six villages namely Kunwara Sujipur, Sihpura, Bharthana Rural, Gopiyaganj, Ramaian Mahmoodpur and Pali Kalan are deprived. In Morhi the middle school does not have its playground. In Umar Senda, Bholi, Lahroi and Pali Khurd villages, there are two schools in each. The average number of students per middle school range between 25 to 300, which is highly imbalanced. Enrolment of female students is far below the male students in middle schools.

There is only one High School among all the 15 cluster villages, located in Ramaian Mahmoodpur, where 117 students are enrolled and females are slightly less than males. Similarly, there is only one Intermediate college in Morhi village, where about 1364 students are enrolled and sex-wise students are 954 males and 410 females. Female participation is less than half than the counter part male students. In both the cases of High School and Intermediate college, students of neighbouring villages are studying.

As reported the number of teachers are not according to strength of students or number of classes, where authorities of education department have to intervene. Also school buildings are either insufficient or they are not fit for schools. It is proposed to open total six new middle schools, one each in those villages, where there is no middle school, like Kunwara

Sujipur, Sihpura, Bharthana Rural, Gopiyaganj, Ramain Mahmoodpur and Pali Kalan. It is also to be kept in mind that in all or alternate village at least one girls' middle school is necessary to be opened. Four new High Schools are proposed, one each in Kunwara Sujipur, Bholi, Bharthana Rural and Pali Khurd. In this case also it is to be kept in mind that half of the existing and proposed High Schools must exclusively belong to girl students at alternate locations. Besides one Intermediate College already existing in Morhi, two more colleges are proposed to be located at Bholi and Lahroi villages. Here also at least one centrally located college must be earmarked for girls only. A rough estimate of Rs.18,000,000/- has been worked out for the construction of middle schools, high schools and Intermediate Colleges which can be adjusted according to the needs and size of the building.

10. HEALTH AND SANITATION

Healthy environment is first and foremost for healthy life. Provision of health and sanitation services are first and foremost for healthy living. Almost all the cluster villages are affected by rain-flood, but in Ramain Mahmoodpur, Bharthana Rural and Jaitupur Khwajgi more than half houses are affected by rain flood. Thanks, villages are hardly affected by drain flood. Proper drainage system by pucca drain is an important requirement to save people from various diseases. Most of the village drains are kutchha,

TABLE 8: HEALTH AND SANITATION:EXISTING AND PROPOSED

S. NO	Name of Village	% Houses Flooded		Drain in Metre	Existing		Proposed	Amount Required for Construction in Rs.
		By Drain	By Rain		Kutcha Existing	New Pucca Required		
				Primary Health centers	No. of Doctors	No. of Nurses		
1	Kunwara Sujipur	-	10.00	1000	2000	-	1(ANM)	-
2	Morhi	-	10.00	300	600	-	1(ANM)	-
3	Umer Senda	-	3.52	1000	2000	-	1(ANM)	-
4	Shpura	-	15.00	400	800	-	1(ANM)	-
5	Kandhesi Pachar	-	33.33	1500	3000	-	1(ANM)	-
6	Asafpur	-	10.00	500	1000	-	1(ANM)	-
7	Jaitupur Khwajgi	-	50.00	1000	2000	-	1(ANM)	-
8	Bholi	-	0.60	2500	5000	-	1(ANM)	-
9	Bhartana Rural	5.00	65.00	1000	2000	-	1(ANM)	-
11	Gopiyaganj	-	20.00	500	500	-	1(ANM)	-
12	Ramain Mahmoodpur	-	75.00	5000	10000	-	1(ANM)	-
13	Iahroi	-	14.29	1500	3000	-	1(ANM)	-
14	Pali Kalan	-	35.00	1000	1000	-	1(ANM)	-
15	Pali Khurd	-	-	500	1000	1	2*+2 1(ANM)	-
16	Sanaipur Gyanpur	-	12.50	150	300	-	1(ANM)	-
								Grand Total
							Total	11,970,000
								27,970,000

*Also with 2 compounders

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA-Bhartana" Sponsored by DRDA- Etawah, August 2004

where water stagnates and the mosquitoes are bread. It is proposed to construct 34200 metres of the pucca drainage system so that water may flow smoothly. The cost of construction of old and new pucca drainage is worked out to be Rs.11,970,000/-.

There is only one primary health centre in Pali Khurd among all the cluster villages where two doctors and two compounders are posted. Health centres are supposed to be located at accessible locations, so that villagers may be benefitted. Since there is no health facility in other villages, therefore, people have to visit Bharthana town in emergency, otherwise touts are the only alternative. Of course there is one nurse posted in each village, but it is not a satisfactory health care. Four primary health care centres are proposed one each in Morhi, Sihpura, Jaitupur Khawajgi and Lahroi. For construction of building about Rs.40,00,000/- has been worked out. A full-fledged hospital is necessary at the centre of the cluster of villages, which is proposed to be opened at Bharthana Rural village, which initially needs and proposed Rs.10,000,000/- for building construction.

Since villagers are partly milkmen and dairying is an important activity, the healthy milch animals are an important element for enhancing the household income. The Veterinary hospitals play an important role in keeping the herds healthy and economical. Since there is no Veterinary

hospital in any cluster villages, therefore at least three veterinary hospitals are proposed, one each in Bholi, Lahroi and Sahajpur Gyanpur villages, which are essential. An estimated cost of construction of Veterinary hospitals has been worked out to be Rs.3,000,000/-. The overall cost of improving the health and sanitation condition in cluster villages is estimated to be Rs.27,970,000/-.

11. MARKET AND ALLIED AMENITIES

For agricultural farm products better market facilities at reasonable accessibility are essential to get the appropriate prices. For better agriculture and income, the farm commodities like fertilizers, insecticides, seeds and implements are important essentials which should be easily available. Besides these shops the grocery and general stores for daily use are required at easily accessible locations. Post Offices and Banks are also allied necessities which also help farmers indirectly. There are few shops of fertilizers distributed in two villages, i.e., Umer Senda and Bholi, but there are no seeds or implements shops in any cluster villages. Most of the farmers buy the agriculture inputs either from Bharthana town or even from Etawah city. There are quite many grocery cum general stores in villages, which serve the purpose. Only in five villages, one Post Office each is located, which is insufficient. Therefore, it is proposed to establish at least three Post Offices, one each in Morhi, Bholi and Lahroi villages.

TABLE 9: MARKET AND ALLIED AMENITIES: EXISTING AND PROPOSED

S. No.	Name of Village	Existing					Proposed			Amount required for construction of weekly market Rs.
		No. of Post Office	No. of Banks	Fertilizers	Seeds	Implement	General	Post Office	Bank	
1	2	3	4	5	6	7	8	9	10	11
1	Kunwara Sujipur	1	-	-	-	-	10	-	-	-
2	Morhi	-	-	-	-	-	15	1	-	-
3	Umer Senda	1	-	1	-	-	15	-	-	-
4	Sihpura	-	-	-	-	-	8	-	-	-
5	Kandhesi Pachar	1	-	-	-	-	15	-	-	-
6	Asafpur	-	-	-	-	-	8	-	-	-
7	Jaitupur Khwajgi	-	-	-	-	-	5	-	-	-
8	Bholi	-	-	1	-	-	20	1	-	-
9	Bharthana Rural	-	-	-	-	-	11	-	1	1
10	Gopiyaganj	-	-	-	-	-	4	-	-	-
11	Ramain Mahmoodpur	1	-	-	-	-	7	-	-	-
12	Lahroi	-	-	-	-	-	10	1	-	-
13	Pali Kalan	-	-	-	-	-	10	-	-	-
14	Pali Khurd	1	-	-	-	-	10	-	1	-
15	Sahajpur Gyanpur	-	-	-	-	-	4	-	-	-
								Total		5,000,000

Source: Based on survey conducted by the author and his team of Giri Institute of Development Studies, Lucknow, for the project "PURA -Bharthana" Sponsored by DRDA- Etawah, August 2004.

There is no Bank in any cluster villages, therefore, two banks are proposed to be established, one each in Bharthana Rural and Palikhurd villages. Since there is no marketing facility in any cluster villages, therefore, one weekly market is necessary at central point, i.e. Bharthana Rural village. This weekly market would also be marketing place of fertilizers, seeds and implements. Besides these shops one each of PCO, Post Office and Bank has to be established in the premises of weekly market. This weekly market would also serve the purpose of animal market. An estimated cost which is worked out to be Rs.15,000,000/- for construction of weekly market including shades and offices, etc. Since there is no recreational facility in cluster villages, therefore, a stadium has been proposed in Bharthana Rural village and it would cost about Rs.5,000,000/-.

Since this area is adjacent to Chambal region which is infected by dacoits and criminals, it is essential that the police posts should be provided in order to remove the threat perception among the villagers. It is proposed that four police posts, one each may be located in Bholi, Pali Kalan, Sihpura and Morhi villages.

TABLE 10:TOTAL EXPECTED EXPENDITURE UNDER PURA BHARTHANA

Sl.No.	Items	Rupees
1.	Power	8,926,000
2.	Potable Water	12,000,000
3.	Repair, New Roads, Flyover, Ring Road	61,750,000
4.	Telecommunication (by Loans)	2,000,000
5.	Education	18,000,000
6.	Health and Sanitation	27,970,000
7.	Market/Bazaar	5,000,000
8.	Stadium for Bharthana Rural	5,000,000
	GRAND TOTAL	140,646,000